

ABSTRACT OF THE DISCLOSURE

A positive active material includes a core including a lithiated compound, and at least two surface-treatment layers formed on the core. The surface-treatment layer includes at least one compound selected from the group consisting of a coating-element-included hydroxide, a coating-element-included oxyhydroxide, a coating-element-included oxycarbonate, and a coating-element-included hydroxycarbonate. The coating element is selected from the group consisting of Mg, Al, Co, K, Na, Ca, Si, Ti, Sn, V, Ge, Ga, B, and As.